Serial No. Not Yet Assigned Atty. Doc. No. 2001P04429WOUS

Amendments To the Claims:

Please amend the claims as shown.

1. (currently amended) \underline{A} $\underline{B}\underline{b}$ urner apparatus (1) for burning fuel (5) and air (4) to \underline{a} combustion gas comprising:

-a main axis (7), a premixing chamber (3) for premixing the fuel (5) and the air (4) with an air inlet (8) for the air (4) to enter said premixing chamber (3) and having a cross-sectional area (9);

a fuel inlet (11) for the fuel (5) to enter said premixing chamber (3); and an outlet (12) for a mixture of the air (4) an and the fuel (5) to exit said premixing chamber,

wherein, said fuel inlet (11) being is located between said air inlet (8) and said outlet (12), further comprising and at least one air blocking member (2) is situated at the air inlet (8) for stabilising stabilizing a burner premixing flame by locally blocking the flow of the air (4) entering said premixing chamber (3) so that downstream of said outlet (12) a locally inhomogeneous fuel concentration (23) results which generating generates a locally hot stream of combustion gas being that is hotter than the average flame temperature.

- 2. (currently amended) <u>The Bburner apparatus (1)</u>-according to claim 1, wherein said air inlet (8) has in said cross-sectional area (9) an outer periphery (14) and with said at least one blocking member (2) being located at the outer periphery (14).
- 3. (currently amended) <u>The Bburner apparatus (1)</u> according to claim 2, wherein said at least one blocking member (2) extends towards said <u>a</u> main axis (7) of said apparatus.
- 4. (currently amended) <u>The Bburner apparatus (1)</u> according to claims <u>2 and 3</u>, wherein said at least one blocking member (2) has at said outer periphery (14) a width (D) which width (D) decreases towards said main axis (7).
- 5. (currently amended) <u>The Bburner apparatus (1)</u> according to claim 4, wherein said width (D) decreases continuously towards said main axis (7).

- 6. (currently amended) <u>The Bburner apparatus (1)</u> according to elaims 4 or 5, wherein said at least one blocking member (2) has a triangular, a trapezoidal or a partially hyperbolic, elliptic or circular shape.
- 7. (currently amended) <u>The Bburner apparatus (1)</u> according to anyone of the preceding claims claim 3, comprising a pilot burner (16) centered to and extending a long said main axis (7) for igniting said mixture of fuel (5) and air (4).
- 8. (currently amended) The Bburner apparatus (1)-according to anyone of the preceding claims claim 3, extenuating along said main axis (7), wherein said premixing chamber (3) comprises a ring channel (17), with said air inlet (8) having a annulus cross-sectional area (9) inclined to said main axis (7), comprising a swirl element (18) despised in said ring channel (17) for imposing a momentum to said flow of air (4) and for feeding said fuel (5) in said flow of air (4).
- 9. (currently amended) <u>The Bburner apparatus (1)</u> according to anyone of the preceding claims claim 3, comprising a regularly perforated plate (19) in said cross-sectional area (9) to which said at least one blocking member (2) is bound.
- 10. (currently amended) <u>The Bburner apparatus (1)</u> according to anyone of the preceding claims claim 3, wherein at least four blocking members (2) are distributed irregularly in said cross-sectional area (9).
- 11. (currently amended) <u>The Bburner apparatus (1)</u> according to claim 1, <u>wherein the burner apparatus is located within a combustion chamber of a combustion turbine, which combustion turbine comprises a combustion chamber (20)</u>.
- 12. (currently amended) <u>The Bburner apparatus (1)</u> according to claim 11, wherein during operation in said combustion chamber (20) at least one recirculation zone (21) with recirculating combustion gas develops and said locally hot stream of combustion gas caused by said blocking member (2) lies at least partially within said recirculation zone (21).

- 13. (currently amended) <u>The Bburner apparatus (1)</u> according to anyone of the preceding claims claim 1, wherein the fuel is , for operation with a fluidical fuel (5), in particular gas or oil.
- 14. (currently amended) <u>The Bburner apparatus (1) according to anyone of the preceding claims</u> claim 1, wherein said at least one blocking member (2) covers less than 30%, in particular between 2% and 20%, of said cross-sectional area (9) of said air inlet (8).
- 15. (new) The burner apparatus according to claim 13, wherein the fluidical fuel is gas or oil.
- 16. (new) The burner apparatus according to claim 14, wherein said at least one blocking member cover between 2% and 20% of said cross-sectional area of said air inlet.
- 17. (new) A burner premixing apparatus, comprising:
 - a premixing chamber for premixing a fuel and air,
- an air inlet having a cross-sectional area operatively associated with the premixing chamber and adapted for the air to enter into the premixing chamber;

an outlet having a cross-sectional area operatively associated with the premixing chamber and adapted for the fuel and the air to exit the premixing chamber; and

a fuel inlet having a cross-sectional area operatively associated with the premixing chamber and adapted for the fuel to enter into the premixing chamber, the fuel inlet located between the air inlet and the outlet and having at least one air blocking member arranged at or near the air inlet for stabilizing a burner premixing flame by locally blocking the flow of the air entering the premixing chamber so that downstream of the outlet a locally inhomogeneous fuel concentration causes a locally hot stream of combustion gas that is hotter than an average flame temperature within the burner.